

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)	
)	
Advanced Television Systems and)	MB Docket No. 87-268
Their Impact Upon the Existing)	
Television Broadcast Service)	

To: Marlene H. Dortch, Secretary
Office of the Secretary
Attn: The Commission

**SUPPLEMENT TO
PETITION FOR PARTIAL RECONSIDERATION
OF WTAT LICENSEE, LLC**

WTAT Licensee, LLC, licensee of television broadcast station WTAT-TV, Charleston, South Carolina, by counsel and pursuant to Section 1.429 of the Commission's Rules, hereby supplements its pending Petition for Partial Reconsideration of the *Seventh Report and Order* in the above-captioned proceeding, released August 6, 2007 (the "*Seventh Report and Order*").

In its Petition, the licensee requested that the Commission correct the FCC antenna identification number for WTAT-DT set forth in the table of allotments information (the "DTV Table") provided in Appendix B to the *Seventh Report and Order* and adjust the effective radiated power ("ERP") for the facility set forth in the DTV Table based upon an appropriate interference analysis utilizing the corrected antenna pattern. *See* Petition for Partial Reconsideration of WTAT Licensee, LLC, filed October 26, 2007. However, because the interference analysis needed to determine the permissible ERP had not yet been completed, the licensee sought leave to file at a later date a supplemental technical statement to specify the appropriate adjustment to the ERP.

That interference analysis has now been completed. As set forth in the attached engineering statement, WTAT-DT may operate with an ERP of 1000 kilowatts without causing impermissible interference to any other allotments or operating stations. *See* Supplemental Engineering Statement of John E. Hidle, Jr., attached hereto at Exhibit 1. Accordingly, WTAT Licensee, LLC hereby supplements its pending Petition to not only request that the Commission amend the DTV Table with respect to WTAT-DT to reflect FCC Antenna Identification Number 67774 but also to reflect an ERP of 1000 kilowatts. As demonstrated in the attached engineering statement, the requested modifications to the DTV Table would allow WTAT-DT to better serve the public without causing impermissible interference to any other allotments or operating stations or otherwise violating any Commission rule. Consequently, WTAT-TV reiterates its request that the Commission partially reconsider the *Seventh Report and Order* and make the requested changes to the DTV Table.

Respectfully submitted,

WTAT LICENSEE, LLC

By: /s/ Clifford M. Harrington
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Dated: November 5, 2007

EXHIBIT 1



**SUPPLEMENTAL ENGINEERING STATEMENT
OF JOHN E. HIDLE, JR., IN SUPPORT OF
A PETITION FOR PARTIALRECONSIDERATION
OF THE DTV TABLE OF ALLOTMENTS
WTAT-DT - CHARLESTON, SOUTH CAROLINA
DTV - CH. 24, 1000 kW, ERP; 583.3 M HAAT**

Prepared for: WTAT LICENSEE, LLC

NOVEMBER, 2007

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**SUPPLEMENTAL ENGINEERING STATEMENT
OF JOHN E. HIDLE, JR., IN SUPPORT OF
A PETITION FOR PARTIAL RECONSIDERATION
OF THE DTV TABLE OF ALLOTMENTS
WTAT-DT - CHARLESTON, SOUTH CAROLINA
DTV - CH. 24, 1000 kW, ERP; 583.3 M HAAT**

Prepared for: WTAT LICENSEE, LLC

I am an Engineer, an employee in the firm of Carl T. Jones Corporation, with offices located in Springfield, Virginia. My education and experience are a matter of record with the Federal Communications Commission.

GENERAL

WTAT Licensee, LLC, licensee of WTAT-TV, Channel 24, Charleston, South Carolina, and permittee of the paired Digital Television Allotment for WTAT-DT, Channel 40, has authorized this office to prepare this supplemental statement, and associated exhibits as part of a Petition For Partial Reconsideration of the DTV Table of Allotments. It is requested herein to correct the FCC antenna identification number to reflect the correct pattern for the WTAT-DT facility on its post-transition channel, and to adjust the effective radiated power to 1000 kW based upon an appropriate interference analysis utilizing the corrected antenna pattern on WTAT-DT's approved post-transition channel, 24.

TECHNICAL FACILITY AS REFLECTED IN THE DTV TABLE OF ALLOTMENTS

The Seventh Report and Order and Eighth Further NPRM (MB Docket 87-268) includes the recently adopted DTV Table of Allotments, that identifies the specific technical facilities at which the Commission has proposed to allow DTV stations to operate after the DTV transition. The facilities included in the DTV Table of Allotments are those for which broadcasters were required by the Commission to certify a specific coverage area based upon their ability to “build out” to the level of checklist or maximized facilities as reflected in their FCC authorizations. WTAT Licensee, LLC understands its obligations under the Commission’s policy that broadcasters’ final facilities must cover their certified coverage area as approved by the Commission. Further, the permittee of WTAT-DT wishes to avoid loss of any current coverage area of either its digital or analog facilities based on the inclusion of an incorrect antenna pattern or ERP in the DTV Table of Allotments.

WTAT-DT, Charleston, South Carolina has an outstanding Construction Permit and Application for License to Cover on file to operate on channel 40 at 400 kW ERP, 583.3 m HAAT on a directional transmitting antenna shared in common with several other stations, including WTAT-TV’s analog facility on channel 24. WTAT-DT has selected its analog channel 24 to be utilized by its ultimate post-transition facility. The Seventh Further Notice shows WTAT-DT as authorized to operate at 283 kW ERP at 583.3 m HAAT on channel

24, utilizing a directional pattern indicated as FCC Antenna Identification Number 74554, which is a theoretical pattern created by the Commission based upon dipole factor calculations. The license of the current analog facility of WTAT-TV reflects the use of FCC Antenna Identification Number 67774, which refers to actual specifications of the common antenna, Dielectric Model TUD-P5SP-16/48-1-B, and this differs significantly from the pattern reflected in the DTV Table of Allotments. Therefore, it is erroneous for the DTV Table of Allotments to reflect the use of FCC Antenna Identification Number 74554 by WTAT-DT on channel 24. Instead, the Table should reflect the use of FCC Antenna Identification Number 67774 on channel 24, because this is the actual pattern currently reflected in the current analog Construction Permit BPCT-20040514AEL, and pending Application for License to Cover, BLCT-20050615ABS of the analog facility of WTAT-TV, currently operating on channel 24, rather than a theoretical pattern based upon dipole factor calculations.

PROPOSED TECHNICAL FACILITIES

It is proposed to amend the DTV Table of Allotments to reflect WTAT-DT's use of FCC Antenna Identification Number 67774; and to increase the associated ERP from 283 kW to 1000 kW. The existing antenna is top-mounted on the antenna support structure, FCC antenna structure registration number 1042963, with the centerline at 580.4 meters above ground level (AGL).

PREDICTED COVERAGE CONTOURS

The predicted coverage contours were calculated in accordance with the method described in Section 73.625 of the FCC's Rules, utilizing the appropriate F(50,90) propagation curves (47 CFR Section 73.699), power, and antenna height above average terrain as determined for each profile radial. The average terrain on the eight cardinal radials from 3 kilometers to 16 kilometers from the site, the antenna site elevation and coordinates were determined from those reflected in FCC antenna structure registration number 1042963. As shown in Exhibit 1, the predicted 48 dBu, (F50,90) principal community contour completely encompasses the principal community of license as required by the Commission's rules. The predicted 41 dBu (F 50,90) "protected coverage contour" is also shown in Exhibit 1.

LARGEST STATION IN THE CHARLESTON, SOUTH CAROLINA DESIGNATED MARKET AREA (DMA)

The DTV Table of Allotments reflects the post-transition operation of the technical facilities of WTAT-DT on Channel 24 at 283 kW ERP, 583.3 m HAAT on a directional transmitting antenna shared in common with several other stations, including WMMP-DT channel 36, and WCBT-DT channel 50. The Commission has approved WTAT-DT's selection of channel 24 to be utilized for the operations of its ultimate post-transition facility. WTAT-DT's low operating power of 283 kW ERP as reflected in the DTV Table of Allotments is a result of WTAT-DT's protection requirements to other broadcast stations based on its pre-

transition operation on channel 40, which will be completely irrelevant to its operation on channel 24. As discussed, *infra*, WTAT-DT's protection requirements on channel 24 will allow for operation at a full 1000 kW ERP. The permittee of WTAT-DT submits that it is in the public interest to increase ERP to 1000 kW in order to maximize its coverage area to cover as many potential viewers as possible without interfering with other broadcasters, in contrast to operating with a technically inferior facility at 283 kW that will provide poorer service to fewer potential viewers. Further, since the other stations sharing the antenna are approved to operate at considerably higher power, and since all may operate at a full 1000 kW under the Commission's rules, it is technically desirable from the standpoint of avoiding potential interference for stations sharing a common antenna to operate at a similar power level.

Exhibit 2 shows a comparison of the 41 dBu F(50,90) coverage contour of the proposed WTAT-DT facility at 1000 kW with the protected coverage contour (47 dBu F50,50) of the largest facility in the Charleston, South Carolina DMA, WCBF-TV channel 2, 100kW ERP, 599 meters HAAT. The requested ERP of 1000 kW for WTAT-DT at its HAAT of 583.3 meters is in excess of the power and antenna height limitations in the Commission's rules for operation of a full service DTV station. However, in accordance with §73.622(f)(5) of the Commission's Rules, the permittee of WTAT-DT requests to increase its ERP to 1000 kW based on a service area smaller than that of the service area of the largest station in its DMA. As shown in Exhibit 2, a comparison of coverage areas appropriately determined based upon land area covered inside the applicable service contour, excluding coverage over the Atlantic

Ocean, the resulting noise-limited service area for WTAT-DT at 1000 kW is 20,730 km², that is considerably smaller than WCBD-TV's noise-limited coverage area of 26,060 km². WTAT-DT's request to operate at 1000kW ERP, 583.3 meters HAAT is therefore in compliance with the Commission's Rules.

ALLOCATION CONSIDERATIONS

An interference study was performed using the Commission's application analysis program, "TV-Process," to ensure that the proposed DTV facility is in compliance with the Commission's *de minimis* interference requirement contained in Section 73.623(c)(2) of the Commission's rules.

The TV-Process study was evaluated to determine if the proposed increase of WTAT-DT's ERP to 1000 kW is predicted to cause any level of new prohibited interference to authorized DTV facilities, including DTV stations, DTV expansion construction permits, DTV allotments or pending DTV applications. The TV-Process study results indicate that the instant proposal is predicted to cause no unacceptable level of new interference to the populations served by any relevant DTV facility as compared to its facility as reflected in the recently adopted DTV Table of Allotments. The instant proposed increase of ERP from 283 kW to 1000 kW is therefore in compliance with the *de minimis* interference criteria contained in Section 73.623(c)(2) of the Commission's Rules

Class A Television Allocation Considerations

As required in Section 73.613 of the FCC's Rules, as established in the Report and Order establishing Class A Television Service, a study of interference contour overlap was performed, based on the WTAT-DT facility proposed herein, to establish compliance with the protection requirements contained therein. The study shows that, as a result of the changes proposed herein, no increase in prohibited contour overlap is predicted to occur with any LPTV stations which have obtained Class A status.

BLANKETING AND INTERMODULATION INTERFERENCE

A number of broadcast and non-broadcast facilities are located within 10 km of the proposed WTAT-DT transmitter/antenna site. The applicant recognizes its responsibility to remedy complaints of interference created by this proposal in accordance with applicable Rules.

ENVIRONMENTAL CONSIDERATIONS

RADIO FREQUENCY IMPACT

Effective October 15, 1997, the FCC adopted guidelines and procedures for evaluating environmental effects of radio frequency (RF) emissions. The guidelines are generally based on recommendations by the National Council on Radiation Protection and Measurements (NCRP) in NCRP Report No. 86 (1986), and by the American National Standards Institute and the Institute of Electrical and Electronic Engineers, LLC (IEEE) in ANSI/IEEE C95.1-1992

(IEEE C95.1-1991). The guidelines provide a maximum permissible exposure (MPE) level for occupational or "controlled" situations that apply in cases that affect the general public. The FCC Office of Engineering and Technology's technical bulletin No. 65 entitled, "Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields" (Edition 97-01, August 1997), provides assistance in the determination of whether FCC-regulated transmitting facilities, operations or devices comply with guideline limits for human exposure to radio frequency electromagnetic fields as adopted by the Commission in 1996. Bulletin No. 65 contains the technical information necessary to evaluate compliance with the FCC's policies and guidelines.

The FCC's Maximum Permitted Exposure (MPE) level for "uncontrolled" environments is 0.2 milliwatts per centimeter squared (mW/cm^2) when applied to broadcast facilities operating between 30 MHz and 300 MHz, and for broadcast facilities operating between 300 MHz and 1500 MHz, primarily UHF TV stations, is derived from the formula, $(\text{frequency}/1500)$.

The MPE level for "controlled" environments is 1.0 milliwatts per centimeter squared (mW/cm^2) for operations between 30 MHz and 300 MHz, and for broadcast stations operating between 300 MHz and 1500 MHz in a "controlled" environment is derived from the formula, $(\text{frequency}/300)$.

The predicted emissions of WTAT-DT channel 24 must be considered, along with the predicted emissions other facilities also located at the authorized site that will be operating at the time the proposed facility would commence operations. This includes WTAT-DT channel

24, as well as WMMP-DT channel 36, and WCBD-DT channel 50. In order to display the “worst case scenario,” all stations at the site were considered at their maximum potential power of 1000 kW ERP. For WTAT-DT, which will operate on channel 24 (533 MHz), the MPE level for “uncontrolled” environments is 0.355 mW/cm^2 , and for “controlled” environments is 1.775 mW/cm^2 .

The proposed WTAT-DT facility, channel 24, will operate with a maximum ERP of 1000 kW from a horizontally polarized directional transmitting antenna with a centerline height of 580.3 meters above ground level (AGL). Considering a very conservative vertical plane relative field factor of 0.3, the WTAT-DT facility produces a predicted power density at two meters above ground level of 0.009 mW/cm^2 , which is 2.53% of the FCC guideline value for “uncontrolled” environments, and 0.506% of the FCC guideline value for “controlled” environments.

As shown in Appendix A, the total predicted percentage of the MPE value at WTAT’s site, considering the cumulative predicted radiation of all broadcast facilities at the site, is only 6.72% of the limit for “uncontrolled” environments, and 1.344% of the limit for “controlled” environments. The site would therefore be compliance with the FCC’s Maximum Permitted Exposure guidelines.

OCCUPATIONAL SAFETY

The permittee of WTAT-DT is committed to the protection of station personnel and/or tower contractors working in the vicinity of the WTAT-DT antenna. The applicant is committed

to reducing power and/or ceasing operation during times of service or maintenance of the transmission systems, when necessary, to ensure protection to personnel. In light of the above, the proposed modification of the WTAT-DT facility should be categorically excluded from RF environmental processing under Section 1.1307(b) of the Commission's Rules.

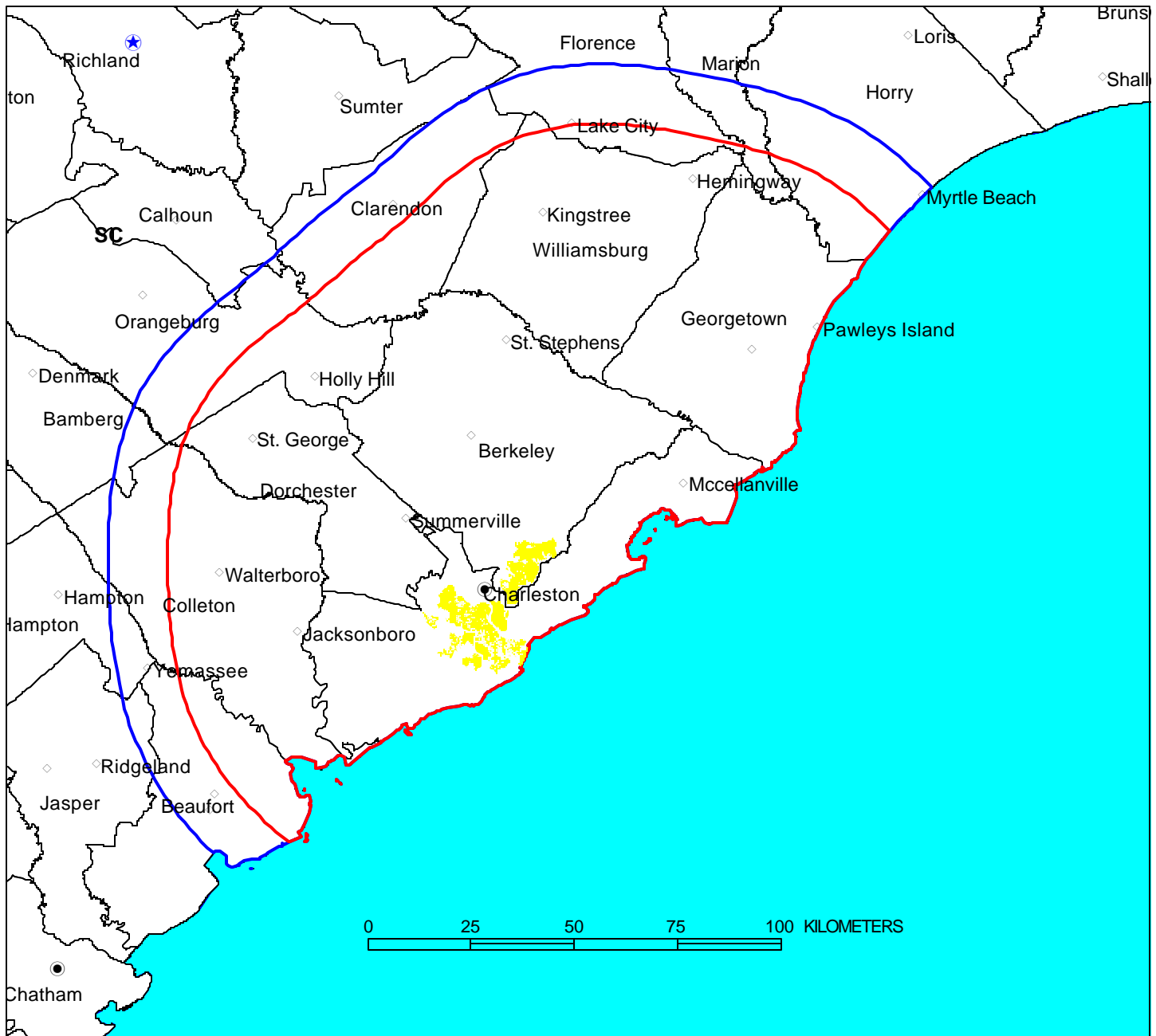
SUMMARY

It is submitted that the proposal described herein complies with the Rules and Regulations of the Federal Communications Commission. This statement and the attached exhibits were prepared by me or under my direct supervision and are believed to be true and correct to the best of my knowledge and belief.

Dated: November 2, 2007



John E. Hidle, Jr.



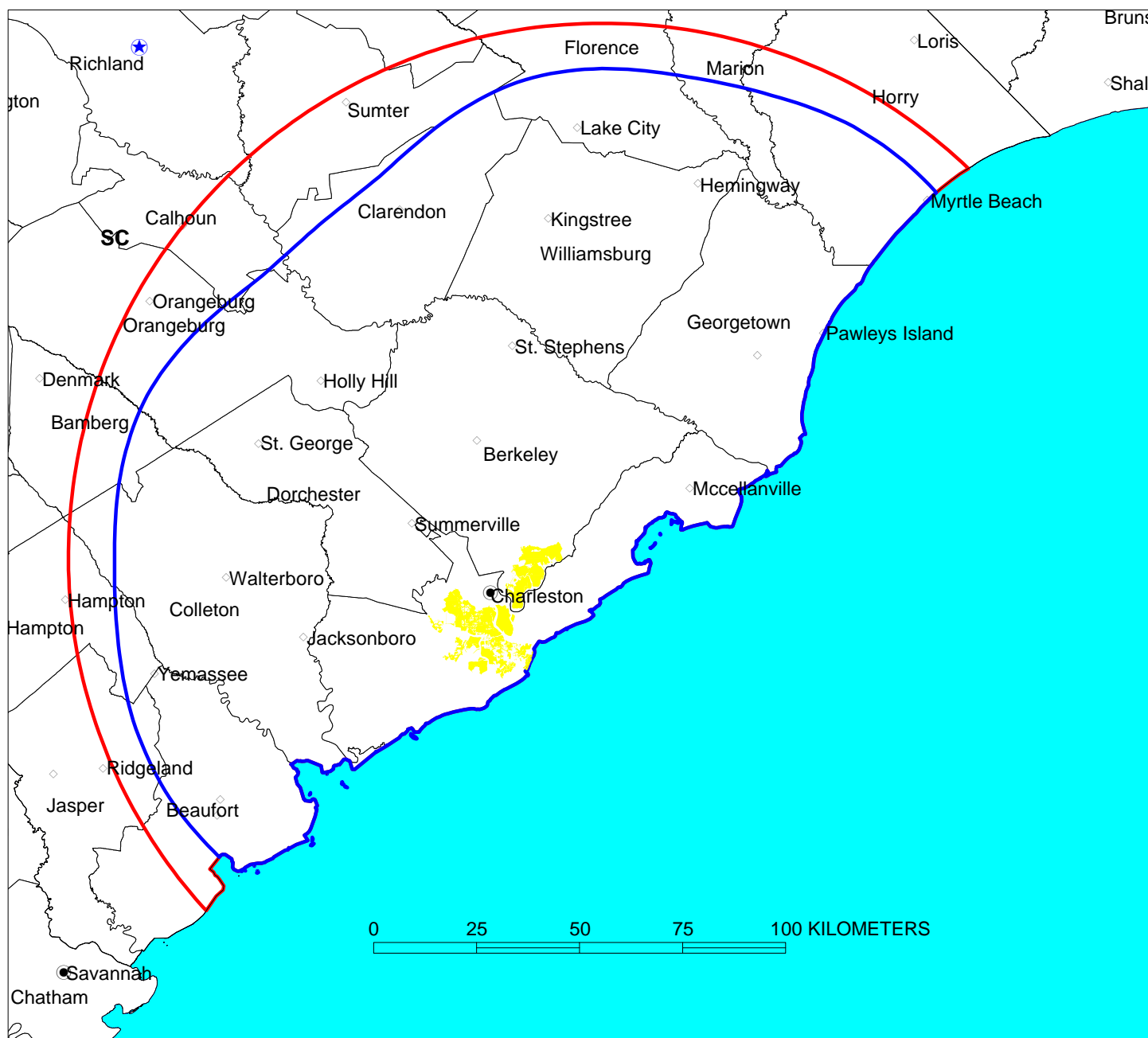
PREDICTED COVERAGE CONTOURS
WTAT-DT, CHARLESTON, SOUTH CAROLINA
COMMUNITY COVERAGE CONTOUR AT 1000 KW ERP
NOVEMBER, 2007

○ WTAT-DT Channel 24, Proposed Facility
 Protected Coverage Contour
 1000 kW ERP, 583.3 m HAAT, 41 dBu, F(50,90)
 Directional Antenna; FCC ID No. 67774

○ WTAT-DT Channel 24, Proposed Facility
 Community Coverage Contour
 1000 kW ERP, 583.3 m HAAT, 48 dBu, F(50,90)
 Directional Antenna; FCC ID No. 67774

Charleston, South Carolina Corporate Boundary

CARL T. JONES
CORPORATION



COMPARISON OF PREDICTED COVERAGE CONTOURS

WTAT-DT, CHARLESTON, SOUTH CAROLINA

ANALYSIS AT 1000 KW ERP

COMPARED TO LARGEST STATION IN
CHARLESTON, SOUTH CAROLINA DMA

NOVEMBER, 2007

○ WTAT-DT Channel 24, Proposed Facility
Predicted Noise-Limited Coverage Contour
1000 kW ERP, 583.3 m HAAT, 41 dBu, F(50,90)
Directional Antenna; FCC ID No. 67774
Land Area Inside Contour = 21,240 km²

○ WCBD-TV Channel 2, Proposed Facility
GRADE B, Noise-Limited Coverage Contour
100 kW ERP, 599.0 m HAAT, 47 dBu, F(50,50)
Land Area Inside Contour = 26,060 km²



Charleston, South Carolina Corporate Boundary

CARL T. JONES
CORPORATION

**SUMMARY OF RADIOFREQUENCY
RADIATION STUDY**
WTAT-DT, CHARLESTON, SOUTH CAROLINA
CHANNEL 24, 1000 kW ERP, 583.3 m HAAT
NOVEMBER, 2007

<u>CALL</u>	<u>SERVICE</u>	<u>CHANNEL</u>	<u>FREQUENCY</u>	<u>POLARIZATION</u>	<u>ANTENNA HEIGHT ** mAGL</u>	<u>ERP (kW)</u>	<u>VERT. RELATIVE FIELD FACTOR</u>	<u>PREDICTED POWER DENSITY (mW/cm²)</u>	<u>FCC UNCONTROLLED LIMIT (mW/cm²)</u>	<u>PERCENT OF UNCONTROLLED LIMIT</u>
WTAT-DT	DT	24	533	H	578	1000.000	0.300	0.00900	0.355	2.53%
WMMP-DT	DT	36	605	H	578	1000.000	0.300	0.00900	0.403	2.23%
WCBD-DT	DT	50	689	H	578	1000.000	0.300	0.00900	0.459	1.96%

TOTAL PERCENTAGE OF ANSI VALUE= 6.72%

*** The antenna heights indicated above are 2 meters less than the actual antenna heights so that the predicted power densities consider the 2 meter human height allowance.*